Wildfire Effects in Watersheds: Impacts, Risks, and Need for Communication

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Plan Formulation-Section C
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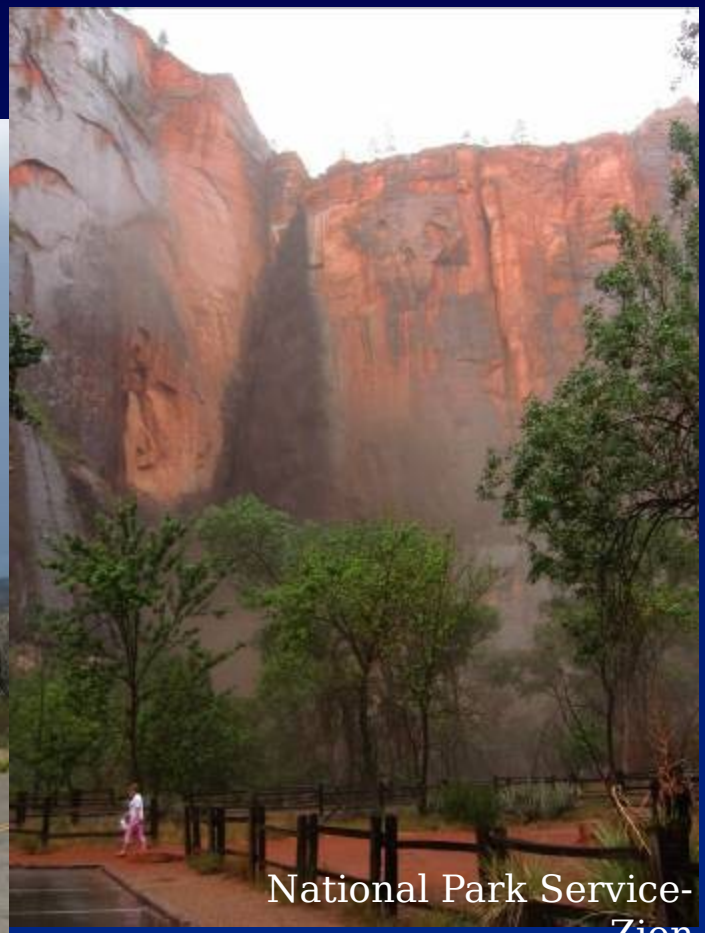
Water Resource Issue?

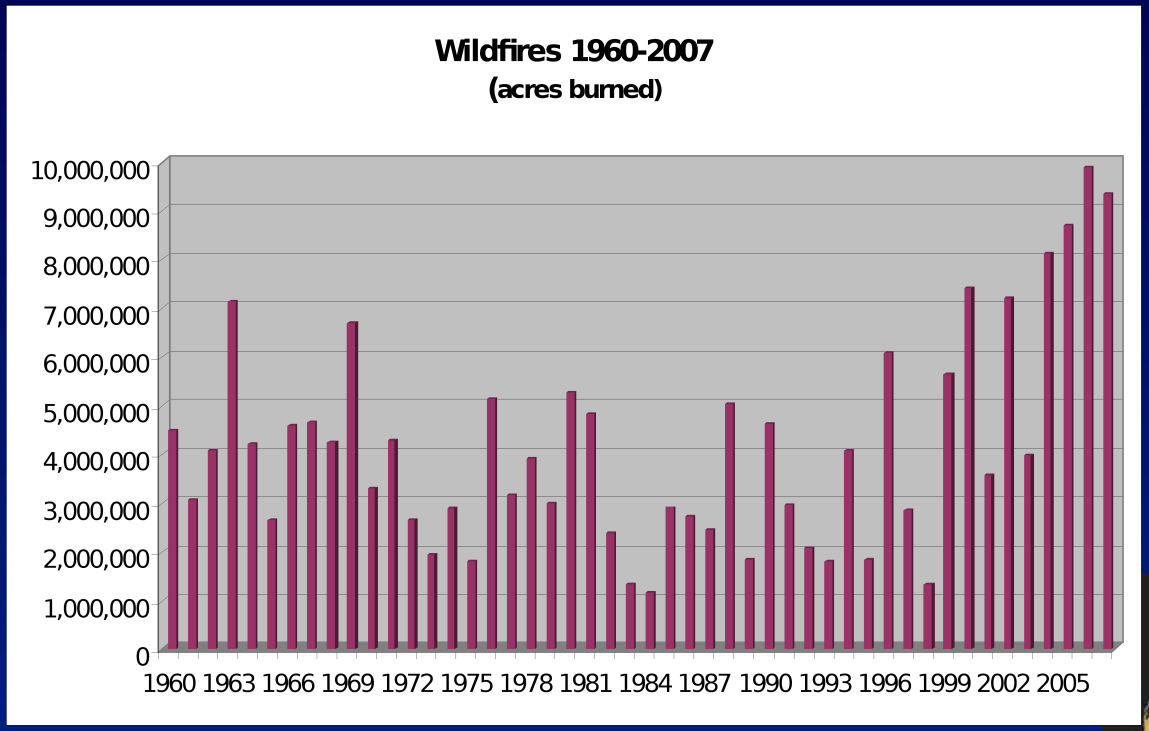
Beaver Dam Mountains-Utah, August 2007



National Park Service-Zion

"You (agencies) need to recognize that what happens at the top of the mountain affects the floodplain"- public comment

Wildfires In the U.S.



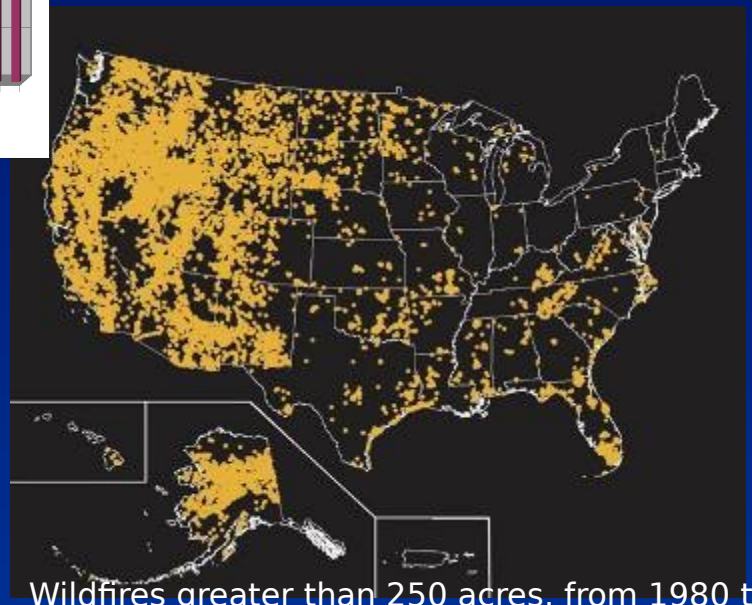
National Interagency Fire Center-
www.nifc.gov

Growing Hazard

Multitude of Effects

Severity Increasing

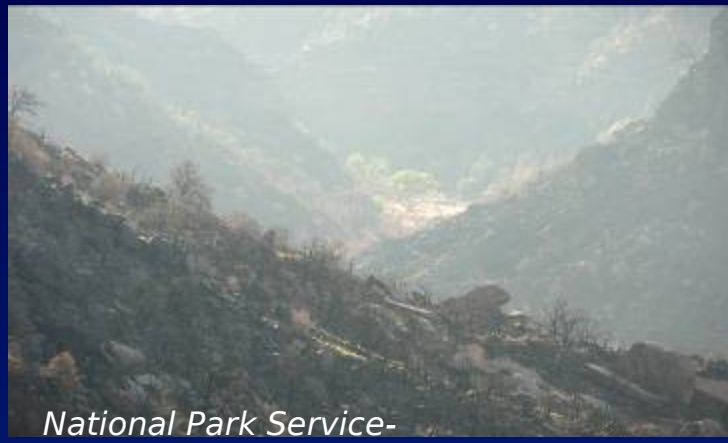
Size Increasing



Wildfires greater than 250 acres, from 1980 to 2003.
(USGS Fact Sheet 2006-3015)

Impacts to Watersheds

Higher peak flows (9-100 x)
Debris
Erosion
Landslides
Water quality
Invasive species



National Park Service-Zion

"the secondary effects of wildfires, including erosion, landslides, introduction of invasive species, and changes in water quality, are often more disastrous than the fire itself."

USGS, FS 2006-3015

National Park Service-Zion

Institutional Issues

Defining the problem

- Fire, Flood, Erosion, Water Quality, etc
- Watersheds

Communication

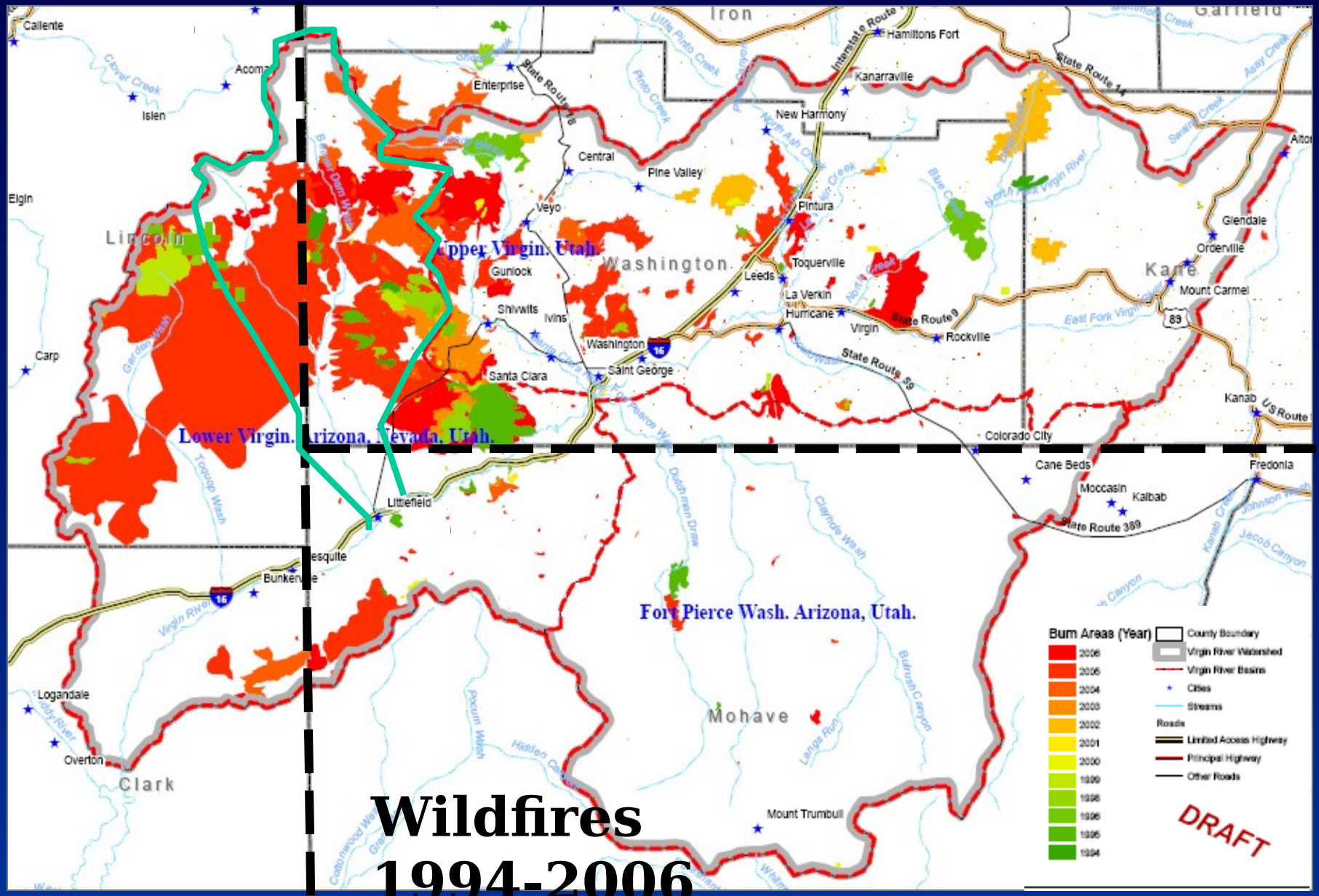
- Across Jurisdictions
- Risk

Authority

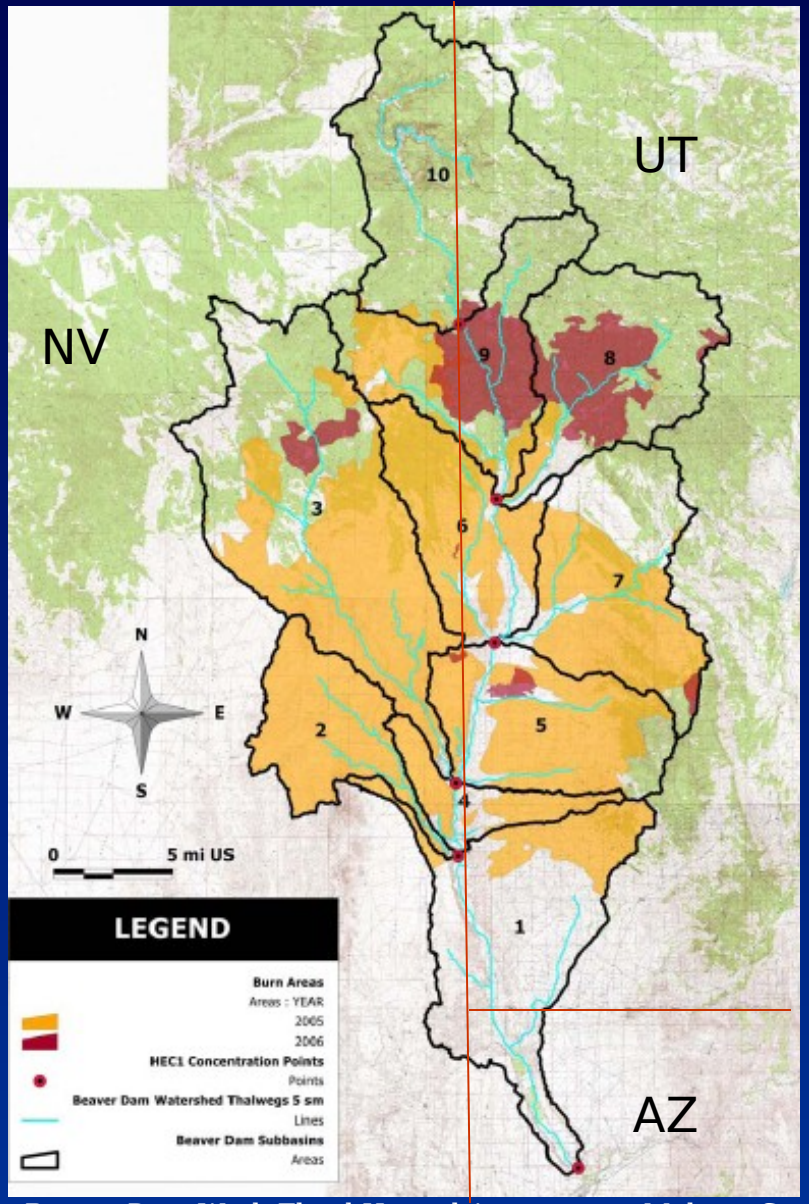
- Public/Private Lands
- BAER/ESR
- Floodplain Management

US Army Corps of Engineers ®
Los Angeles District

Virgin River Watershed



Beaver Dam Wash



Beaver Dam Wash Flood Hazard Assessment, Mohave County, Arizona 2007

2005 Flood (Pre-fires)

930 square miles (Utah, Nevada, Arizona)

1,700 --- 7,700 feet

Desert Shrub --- Pinon-juniper woodlands

40-45% burned in 2005-2006

Flood warning time significantly reduced

Key Takeaway Points

WILDFIRE IMPACTS AN EMERGING ISSUE

WATERSHED PERSPECTIVE LACKING

COMMUNICATION NEEDS IMPROVEMENT

WHO IS INCORPORATING WILDFIRE INTO PLANNING?